Nature in the city: Can allotments improve the well-being of urban dwellers?

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Introduction

Allotments have been a part of the landscape of British cities since the dawn of the industrial revolution. They allowed rural communities migrating to the city to continue growing some of their own food. Despite many decades of decline since their heyday during World War Two, this tradition continues today and allotments are currently enjoying a renaissance as a new generation is introduced to the benefits of home produce.

Humanity has evolved into living in urban environments in a short period of time which some studies suggest is a factor in increasing levels of mental illness (Groenewegen et al 2006). The ecopsychology lecture given during the A5 module talked about the concept of "biophilia" and how we may possess an innate affinity with nature. As such, some hospitals have used this idea through the use of healing gardens (Hartig and Marcus 2006). Therapy through gardening and horticulture is recognised by the medical profession as being beneficial to patient rehabilitation. Furthermore it has been shown that simply having "green spaces" in cities may have an impact on well-being (Maas et al 2006).

Luckily most towns and cities already contain these "green spaces" within their boundaries, namely the allotment. In this essay I am going to investigate the allotment garden to examine the benefits they may have on urban dwellers. I will first look at a brief history of allotments within the context of the urban built environment, look at the concept of biophilia before examining some case studies and papers on the benefits of green areas and allotments.

The humble allotment

Having been driven away from their rural land and into the harsh working conditions of factory life during the industrial revolution, workers needed somewhere with fresh air and the ability to supplement their poor diets with fruit and vegetables (Shoard 1997). This is how allotments (which literally means "portion" of land) came to take shape in the urban landscape of the 19th century. The middle classes sanctioned their creation hoping this would stop the "working poor" from pursuing other activities such as drinking. However it was not until 1908 that the "Small Holdings and Allotments Act" came into law meaning councils had to provide allotments for everyone and not just workers. By 1913 there were approximately half a million urban allotments in the UK (Meller 2005).

Notwithstanding the well known contribution of allotments during both World Wars when they provided essential food supplies to the nation, allotmenting has seen waves of popularity during the 1930s, 1970s and the 2000s. The reasons for this are not just food production but "fresh air, health and a vigorous lifestyle" (Meller 2005). Since the 2nd World War, the number of plots has fallen from around 1.4 million to around 250,000 today. As urban land becomes scarcer and government planning policies dictate that brown-field sites are to be redeveloped first, allotment sites continue to come under threat from development (London Assembly 2006). However perhaps it is more than just the economic cost of the land that needs to be taken into account.

Urban Lifestyles

Across the world more and more people are forced to move to towns and cities in search of work, food and water. In the UK more than 80% of the population lives in urban environments and of the 22 million dwellings in England 16% of these are flats. The majority of these flats are in urban areas without their own garden (National Statistics 2006). Furthermore since the 1970's and the growth of supermarkets, cheap food and reduced interest in growing food, many back gardens have been lawned over and used instead for leisure activities (Meller 2005).

An increasing urban population places stresses on the infrastructure of the city but there is also a psychological cost on the urban dweller. Cities were rarely designed with the natural environment in mind, the town planner being occupied with designing highways and roads. Complaints around city living are on the increase and mainly concern traffic, pollution and noise (Brown 2008). For an extreme example of how poorly planned urban environments can be detrimental to human health, Tesitel et al (2000) examine communist-era towns in the Czech Republic which are almost completely devoid of nature.

Lifestyle and work changes have brought about increasing levels of obesity in European countries placing stresses on health systems. However it is not just physical problems that need to be addressed, the World Health Organisation defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity".

Diseases associated with urban sanitation may have been eradicated in the last century but recently there has been an increasing problem with mental health related illness. We are living longer lives but this may not come with a better quality of life (Pretty et al 2003). As a quarter to half of all consultations with GPs concern mental health issues such as stress, depression and anxiety (Wellington School of Medicine 2001), the effects of urban living and our disconnection with the natural world is coming under increased focus.

Biophilia

Most people now spend a large proportion of their time indoors which could be a contributing factor in many of the problems mentioned above. Pergams and Zaradic (2006) have shown that increases in the use of electronic technology by children in the United States are having an effect on the number of visits to National Parks. If we think about the evolutionary steps that we as primates have taken (Frumkin 2001), millions of years were spent as hunter gathers and only in the last few thousand years have we gathered in villages and more recently towns and cities. E.O. Wilson is the zoologist who coined the phrase "biophilia" saying that "it would be quite extraordinary to find that all learning rules related to that world have been erased in a few thousand years, even in the tiny minority of peoples who have existed for more than one or two generations in wholly urban environments." (Wilson 1996)

This connection with the natural world has been woven into much of human culture throughout the ages. Folk stories, myths and emotional feelings are tied to nature and we pass this on to generations through language (Pretty et al 2003). For modern cultures this may seem irrational but in many cultures around the world the externalisation of nature does not exist. Nature is not isolated but part of the human psyche (Pretty et al 2003).

This concept of "going back to nature" may seem like we need to travel away from urban environments to immerse ourselves in stunning natural landscapes but this is not the case. Kaplan (1995) talks about "the everyday, the unspectacular natural environment that is, or ideally would be, nearby." The simple act of gardening itself involves manipulation of living things and therefore expresses that human need to be in touch with nature.

Green therapy

For many, a walk in the park is a natural way of resting and recovering from stress. This obvious link between health and nature has existed for many centuries. As Brown and Bell (2006) point out, there was a growth in spa towns during the Victorian era as well as trips to the seaside being seen to be good for health. More recently Ulrich (1984) showed that even the act of seeing trees out of a hospital window rather than a brick wall had a restorative effect on health.

There are many examples of gardens being used for rehabilitation purposes. Healing Gardens were once a part of Victorian hospitals, providing an area of peace and tranquillity for both patients and staff (Hartig and Marcus 2006). Writing in the Lancet they said that these places of refuge may not statistically be shown to heal a patient per se but can have a restorative benefit on their well-being. Medical professionals, once distrustful of any studies showing links with nature, are now more accepting of recent findings

and many hospitals in the United States now have healing and therapeutic gardens (Waldholz 2003).

Green spaces may be a factor for those recovering from illness, but how important could this link to nature be in our daily lives? In their study on Green Exercise at the University of Essex, Pretty et al (2003) showed that as well as diet and physical activity, a connection to nature was just as important for emotional and physical health and well being. There has been a push by the government for people to exercise with organisations such as the Forestry Commission promoting the idea of getting back to nature at the same time as exercising. Closer to home gardens fulfil a basic human need, producing food for survival whilst at the same time put us in contact with nature. Thus the allotment garden could be seen as a good way of bringing these benefits closer to urban dwellers.

A look at allotments

In the UK, allotments are no longer the preserve of middle and old aged males. From 2% in the late 1960's, more than 16% of allotment holders are now women (Arnot 2001). The social and community aspects of allotments are a reason why allotmenting may be better than pottering in your own back garden. In Milligan et al (2004), the benefits of communal gardening were examined on an allotment in Carlisle, Northumberland. Although some respondents to the study did not enjoy working well in groups, the majority found it gave them a sense of satisfaction, achievement and aesthetic pleasure. The authors saying it improves an individuals "emotional, physical and spiritual renewal".

In larger cities, those in lower socio-economic groups are likely to live in estates and lack any form of green space. It is in these groups that visiting allotments are likely to benefit the most (Maas et al 2006). Examples from community gardens in the USA show similar positive results. The garden has the "ability to address an array of public health and liveability issues across the lifespan" (Twiss et al 2003). Armstrong (2000) looked at community gardens in upstate New York and found benefits to users not just of health benefits and good quality food but also helping address other issues in the neighbourhood such as crime and graffiti.

Having these communal natural areas near to people's home is important for these benefits to occur. An epidemiological study by Maas et al (2006) showed a strong link between health and green spaces within one and three kilometres of people's homes. Other studies in Japan and the Netherlands have shown reduced mortality rates in elderly citizens when these green areas are within walking distance (Takano et al 2002). A Danish Survey (Nielsen and Hansen 2007) linked access to a garden and short distances to green areas with reduced stress levels. One problem facing UK residents is that allotments were built on the outskirts of cities but waiting lists and

urban sprawl may mean people having to travel further afield which could negate some of the benefits of having an allotment within walking distance.

As well as recognising the benefits of the passive appreciation of nature, a review of Social and Therapeutic Horticulture research produced jointly by Thrive and Loughborough University showed a strong link between the active participation in gardening and horticulture (Aldridge and Sempik 2007). They list many positive outcomes that this can have such as social inclusion and rehabilitation as well as peace, spirituality and tranquillity.

Pretty et al showed that there is a "synergistic benefit" in adopting physical activities while being directly exposed to nature (Pretty 2003). Kaplan and Kaplan (1989) looked at the "restorative environment". They explain that as nature is inherently interesting, it invokes an involuntary action which does not require any effort. Such a reaction can therefore reduce stress levels. They describe four dimensions which working on an allotment fulfils: being away, fascination, extent and compatibility. Allotments provide virtually an infinite level of fascination and wonder on a very small scale. One of the respondents to the Loughborough project described it as "a very, very good environment to come and build up your energy levels". It seems like the concept of "biophilia" can be shown to be applicable even to urban allotment sites.

Other benefits

As mentioned earlier with the experiences of community gardens in New York, the positive effects of allotments are not solely limited to the allotment holders themselves but the local community. Furthermore there are other advantages such as reduced environmental impacts in terms of food miles, less local pollution and increased biodiversity in the local area. However there are some who would describe allotments as a visual eyesore so this needs to be kept in mind. Finally is the idea of promoting resilience as the skills and knowledge gained while producing your own food are enormously beneficial to the local community.

The Future of Allotments

Despite the huge benefits that allotments bring to a community, current legislation still uses the 1908 Act which some say is unsuitable for a modern allotment movement. Recently in Parliament (Hansard 2008), Tony Baldry, Conservative MP for Banbury, presented a bill to encourage local authorities to provide new allotments and to impose duties on housing developments to make provision for allotments. Even in the last few years allotments have been lost to development despite waiting lists of up to 10 years in place like Central London (London Assembly 2006). Derelict or abandoned land in cities should be taken over for growing purposes even on a smaller scale.

Conclusions

As part of the landscape of the British town and city for nearly 200 years, allotments have ridden the waves of popularity several times. However as people become more concerned about the environmental impacts of food production, allotments can also shown to be good for mental and physical health. This is backed up by studies showing that being amongst nature, however minimally, can be seriously good for your health.

A good proportion of new dwellings built in the UK over the last 10 years have been flats, where the residents lack the ability to grow their own food or interact with nature. Despite the positive benefits, allotment sites are still under threat and rather than reducing the numbers, government and local authorities need to be thinking about the longer term and actually increasing the number of sites. The health and societal implications of urban residents will outweigh any short term financial gain from selling the land.

Allotments are just one small piece of the jigsaw of the built urban environment. The benefits they provide are not the complete solution to the health problems of the nation. Planners need to seriously address other issues such as traffic problems. However by considering the effect green spaces can have in an urban environment, more resources should be placed on protecting and expanding these areas for the future.

Limitations and Further Work

Unfortunately there was a lack of any specific long term studies available on allotments and well-being however references to the breadth of studies provided show that there is a considerable amount of peer-review literature on the importance of green spaces. However, a 4 year study is currently taking place in the Netherlands (Groenewegen et al 2006) looking at whether having an allotment is related to health, well-being and perceived safety in urban dwellers and how this relation can be explained. They plan on comparing those with allotments to neighbours who do not have one and also those on the waiting list. Using diaries and interviews they aim to see the long term benefits of allotmenting. Unfortunately for this essay, these results will not be available until the year 2009.

There was only sufficient space to touch the surface of the ecopsychological discussion surrounding allotments. Much research exists and the reader is invited to follow some of the papers in the bibliography for more information. Something I feel would be very interesting to investigate is the difference between the financial profits town councils may receive for selling existing allotment sites and the costs to the NHS for medical treatment for depression. There are schemes across the country that use allotments for mental therapy but this is generally on a local scale and the financial implications are rarely mentioned.

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